[3 cont.]

123 the sum of the ethnological results obtained in each case is a func-
124 tion of the amount of "yellow" money that in each instance was available to me.

000 The results of my work, together with the space available to me, determined the size and content of this book. For the prehistoric cultures, I refer the reader to the first volume.

114 My original intention of giving a survey of those tribes
128 among whom I was unable to do research had to be abandoned in view of the amount of space placed at my disposal. I intend to do this in the final section of the third volume, where, along with the anthropological findings, an over-all survey of the cultural and racial history of South Africa is to be presented. I have
[127] referred to the literature at some length only in the accounts on the Bushmen tribes of South Africa. In particular the officers of the Imperial German Colonial Force performed extremely valuable pioneering work in this area. Their accounts, given with military exactitude, are unsurpassable and represent ethnological sources of the first rank.

126 Wherever I did not carry out the observations myself but wrote down the translations of my native interpreters, I have left them unchanged. Hence, I hope that the reader will not hold against me the stylistic defects that appear here and there. The native words for the most part were written down by my interpreters. I would have been happy if it had been possible for me to have all the texts checked by competent experts. This was impossible. I therefore request indulgence in case there are any errors in the linguistic transcription. At any rate, these people wrote their mother tongue. [Page 4 blank.]

[5] The Bushmen Tribes

172 In terms of geological eras, South Africa has undoubtedly been inhabited for as long a time as the other parts of the Old World. Naturally, the first cultures we know are those that possessed a stone industry. Among these the hand-ax industry, which is also the oldest elsewhere, is likewise widespread in South and Southwest Africa. Since Reck has most recently established

/241/

000 Anthropological, Ethnological, and Ethnographic Observations concerning the Heikum and Kung Bushmen (1), with an appendix on the languages of these Bushman Tribes (2).

1. Presented at the session of November 18, 1905 /of the Berliner Gesellschaft für Anthropologie, Ethnologie und Urgeschichte/.

121 2. The linguistic notes on the language of the Heikum Bushmen were gathered on the Omuramba Omatako, while the linguistic notes concerning the Kung Bushmen were taken down in a Kung settlement on the northern edge of the Kaukau Veld, approximately 15 kilometers west of Dobe.

A stay of several months in the vicinity of a Bushman settlement near Otjomavare, a watering place on the Omuramba ua omatako, about 50 kilometers south of Grootfontein and 120 kilometers northeast of Waterberg, gave me the opportunity to make a series of observations on the Bushmen, which, I believe, in part presents new information and in part complements and confirms what is already known. My first concern was to determine the size of the Bushmen, who are traditionally known as abnormally small, by obtaining absolute measurements. A closer acquaintance with this interesting people then led me to make further investigations that will be of interest to the ethnologist and the ethnographer.

I had to manufacture in part the instruments needed for making the anthropological measurements, but I hope that this circumstance has not diminished the accuracy of the results.

101 The Bushmen concerned call themselves "Heikum" people, a
[194] name in which the 'k' is to be replaced by the click indicated in
124 the Nama language by //. Thirty-one adults and eight children were measured.

Of the adults 14 are men and 17 women.

●128 I shall first present the average values of the absolute measurements, and then a number of proportional figures and indices.

/241 cont./

128 Tables giving all the /242/ measurements for each individual, are attached, as are forms for the observations concerning the descriptive characteristics of the individuals measured.

141 The average values for the adults measured are as follows:

	Men	Women
1. Body height	155.3	149.7
2. Height of the chin above the ground	135.7	130.6

142 291 301 342 516

Fig. 1. Heikum Bushmen. Men.

3. Height of the navel above the ground	93.2	90.4
4. Height of the upper edge of the symphysis above the ground	82.2	79.6
[Fig. 1 appears here.]		
5. Height of the acromion above the ground	130.5	124.9
6. Height of the elbow joint above the ground	99.9	96.5
7. Height of the projection of the radius above the ground	76.0	73.4

5:Marshall E-5 (1950-1955) 1957 FX10 Bushmen FX10
Kung

test this factor and eventually we learned that there are two aspects to the /Kung system of kin terminology. In one terms are applied according to the biological position of the persons; in the other terms are applied because persons are classified with others by having the same names, in ways this paper will explain. The factor of the name has resulted in kin terms being applied by persons who have no consanguineous or affinal ties, but who are considered to be related through the factor of the name in what we call the name-relationship.

Miss Bleek in her paper on 'Bushman Terms of Relationship'[1] has recorded /Kung terms. Students of the subject interested in comparing her paper with this will find them in agreement to a considerable extent, but Miss Bleek's paper does not go so deeply into the terminology as this does nor does it bring out the significance of the factor of the name.[2]

Our material on /Kung kin terminology is presented in two parts. (I) The first part (A) deals with terms applied to consanguineous kin, and explains the factor of the name and the way the application of terms is extended through the factor of the name to persons who have no consanguineous or affinal ties, in what we call the name-relationship; and (B) deals with terms applied to affines. (II) The second part deals with certain aspects of behaviour related to kin terminology, touching briefly upon marriage prohibitions and preferences from the point of view of terminology. It deals more fully with the joking relationship, an aspect of behaviour which relates closely to terminological categories. The paper finally touches upon the way the name-relationship serves as an amalgamating factor within a whole region among people who have no larger organized social units than autonomous bands, small ones of 10–15 persons up to large ones of 40–60 persons, composed of consanguineous kin and their affines.

Space does not permit here a description of the composition of bands, but we hope in a future publication to give data on the family and bands, on hunting and veldkos territories, marriage, residence, settlement patterns, and on the behaviour among kin in forming hunting and gathering parties, arrow-lending, meat-sharing, gift-giving, &c.

[1] D. F. Bleek, 'Bushman Terms of Relationship', *Bantu Studies*, vol. ii (1923–6), pp. 57–70.

[2] Miss Bleek (ibid.) sometimes gives the descriptive phrase in place of, or in addition to, the term, as if we should say father's brother or mother's brother instead of uncle. For instance, *ko siŋ* is a descriptive phrase meaning father's younger brother or younger sister. There are differences of spelling. We should like to follow Miss Bleek's spelling, but we put down as best we could what we heard and cannot change over to her spelling because in the different areas the Bushmen's pronunciation may possibly have varied slightly. There are some terms given by Miss Bleek which we did not hear in the Nyae Nyae region. The /Kung of Nyae Nyae do not use the term *tsau* for Br. We did not hear *||gi*, nor *soiŋ||gi*, nor *tsa* as a prefix to *siŋ*. Otherwise the terms we record are recognizable as the same terms which Miss Bleek records. Miss Bleek, on the other hand, does not record all the terms which we record as used in the Nyae Nyae area. The principal difference lies, we think, in her not taking into account the factor of the name. We think she had an inkling of there being such a factor among the /Kung she worked with, for she says they had a word */ku* which she thought meant 'kinsman' or 'namesake'. In any case, she does not show all the terms which in the Nyae Nyae region might be applied to grandparents, grandchildren and collaterals on both the paternal and maternal sides. A detailed comparison of the papers would show several examples, but one will suffice to illustrate the point. Miss Bleek records the terms for FaBr, *tsu*, and MoBr, *tsun||ga*, giving the impression that the /Kung system makes a terminological distinction between the paternal and maternal siblings, whereas we found that in the Nyae Nyae area both terms, *tsu* and *tsun||ga*, might be used for either FaBr or MoBr, and, besides, that the sibling term, elder Br, might also be used for FaBr or MoBr, as will be explained.

5:Marshall E-5 (1950-1955) 1957 FX10 Bushmen FX10
Kung

601

Here are the parent–child terms:[1]

Fa	ba (b^ha)[2]
Mo	dai[3] (t^hai)
Mo (voc.)	aiya (āiya)
So	/ha ($ŋ/^ha$)
Da	≠khai ($ŋ\neq kxai$)

These terms are subject to no modification. They are used by a person for no other relatives than his biological parents or offspring and no other terms can be applied in these relationships.

Sibling terms are as follows:

elder Br	/go (/o)
elder Si	/kwi (/kwi)
younger Br or Si	tsī (tsī)

The above terms are used for both full and half siblings. These terms are fixed to the sibling relationship in the sense that no other terms replace them under any condition; but, unlike the parent–child terms which are applied to no other relationship, the sibling terms are under certain circumstances extended to other relationships than that of biological sibling.

The generational terms are as follows:

Applied to males	*Applied to females*
tsu (tsū)	//ga ($g//^ha$)
/gu/na (/uŋ/^ha)	tūn (txūŋ)
tun/ga w.s. (txuŋ.g/a) alternate to /gu/na	

The terms are reciprocal. If a male ego applies the term *tsu* to a man, he is termed *tsu* by that man. Or, if a male ego terms a woman *//ga*, she terms him *tsu*. It is the same with the */gu!na–tūn* pair.

The above statements are subject to the qualification that, when using these terms, the older person invariably uses a diminutive form for the younger person. We shall list the diminutives here, and then, to avoid being cumbersome, omit them henceforth throughout the text. The diminutive is expressed by adding the suffix *ma*,

128
194
114

[1] The spelling of the Bushman terms used in this paper is an approximation. We represented the Bushman sounds as we heard them as nearly as we could without using symbols except for the clicks. The four clicks are symbolized as follows: dental /, alveolar ≠, alveolar palatal /, and lateral //.

[2] Mr. Ernst Westphal of the School of Oriental and African Studies of the University of London, when he visited our expedition at Gautscha Pan, took down the terms in phonetic symbols as /Kung informants pronounced them. We give his symbols in parentheses the first time the term is given. We wish to express our gratitude to him.

[3] Mr. Westphal spells the term for Mo with a *t* (t^hai), as does Miss Bleek (*tai*). Professor Clement M. Doke, in his outline of the phonetics of the language of the /Kung, *Bantu Studies*, vol. ii (1923–6), pp. 130–65, on p. 150 spells it *ʔai*. We feel apologetic about insisting on *dai*, but we thought we heard the voiced sound *d*. We wondered if the *d* derived from *di* which means female and occurs in the term *di/guma* which is applied to persons who have the same name as one's mother (cf. p. 9).

128 Diagrams will be given to illustrate the homonymous method of applying terms,
601 but they do not illustrate a typical family. No Bushman family we know has as many
162 living children as in Diagram 4. Bushmen are completely nomadic and must carry
105 their young children and all their possessions, walking seventy or eighty miles or
347 more as they move from one wild crop of roots or nuts to another. They limit, by infanticide, the number of infants to those they can carry and care for. ≠Toma, one of our informants, helping me one day to construct one of these hypothetical illustrations, laughed and said, 'Who is this who has so many children? Is it an ostrich?'

DIAGRAM 2

601 In this illustration ego's */gu/na* is his FaFa. Ego's FaBr and FaSi are the So and Da of his */gu/na*. They and ego use the adjacent generational terms, *tsu* and *//ga*, for each other.

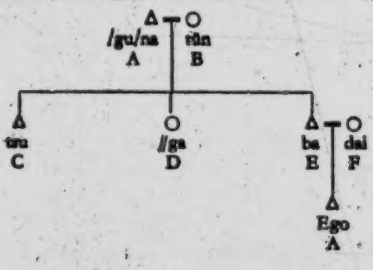
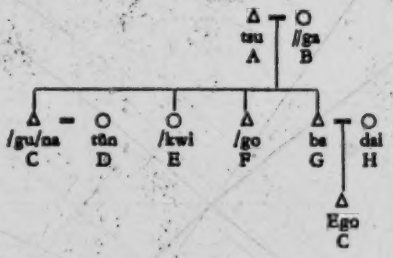


DIAGRAM 3

Here ego is named for his FaBr. In this case ego's FaFa is ego's */gu/na*'s Fa and ego's FaMo is his */gu/na*'s Mo; *tsu* and *//ga* are the terms used. Ego's FaBr and FaSi are the Br and Si of ego's */gu/na*; the sibling terms are used. Ego applies the term *tũn* to the wife of his */gu/na*.



Diagrams 2 and 3 illustrate ego's application of terms to members of his */gu/na*'s family. Letters represent names. A person who is designated by the same letter as a person in a generation above him has been named for that person. The naming is customary and correct as far as it goes. Some of the children would be named for their mother's parents or siblings, but, as those persons would be ego's affines, until the affinal terms are given this aspect of the illustrations will be postponed.

There is a secondary application of the terms originally applied by ego to members of his */gu/na*'s nuclear family and spouse. Ego applies terms to persons who are named for the latter, and continues during his lifetime applying to persons descending from

There were more species of grass, and, particularly on the dunes, more of trees and shrubs. The fauna was also richer for there were buffalo and elephant and many waterfowl in addition to the animals found in the Kalahari.

The Bushman languages represented in this paper are classified according to Bleek's *Comparative Vocabularies of Bushman Languages* (1929). They are !h3:, the closely interrelated ǁganakwe, ǀgikwe and Naron, and Auen (see also Bleek, 1928: 60-64).

!h3: is a member of the southern group, in which the lip click is found, and a dialect of what Bleek calls ǀnuǁen, S6 in her system of classification. Bleek's spelling is !k3:, but I heard the click aspirated. It is spoken in the neighbourhood of Lehututu, which is 150 miles south of Ghanzi.

ǁganakwe is spoken to the east of Ghanzi, and has been studied by Maingard (1957).

The centre of the ǀgikwe language appears to be in the country to the south-east of Ghanzi. It is a member of Bleek's Central group, closely allied to Naron and easily understood by Naron speakers although many words are different. A curious feature of the phonetics is the occurrence of the ejective lateral explosive followed immediately by the velar glottal affricate (see Cole, 1955: 23 and Beach 1938: 222-223). The first sound is not mentioned in any papers that I have seen on the Bushman languages.

Naron is Bleek's C2. There is an error which is liable to confuse one on page 3 of her publication, where the languages of the Naron and Masarwa of Tati have been transposed. Naron should be under C2 and the Masarwa language under C1. A grammatical sketch of Naron is given in Bleek's paper of 1928.

Auen, Bleek's N1, is the eastern form of the !khū linguistic group and is spoken round Gautscha Pan. It was studied by Maingard when he was a member of this same expedition and an account of it is given in his paper of 1957. In this paper I refer to it as Eastern !khū.

The work done in the Kalahari was done through interpreters, and much of that in the northern area likewise, except towards the end of the expedition when through closer contact with the Bushmen for a longer time than in the south, I was able to acquire a smattering of the Eastern !khū language, enough to ask straightforward questions and to understand straightforward replies. The phonetics of the Bushman languages are a study in themselves, and I do not claim that my spellings and indications of the tones are exact. In the orthography I have followed Bleek (1929) with the following exceptions:—

1. I have placed the n first when it is combined with a click. It has been the convention to place the n after the click in the written Khoisan languages, the argument being that the n and the click are pronounced simultaneously (Meinhof, 1909: 5). To my ear the n is the first sound in the combination.
2. Bleek does not mention the voiced h, which sometimes follows a nasalised click. I have accordingly followed Doke (1936: 448) and used the symbol ɦ.

For easy reference, the symbols I have used are listed at the end of this introductory chapter.

As the spellings of the Bushman names on my herbarium specimens are from field notes, they are often different from the spellings given in this paper, which was done after I had had the opportunity of consulting the authors I have mentioned. It will be noticed that many of the plants do not have the full set of Bushman names. The main reason is that we were not in contact with the Eastern !khũ speakers until we had passed Ghanzi, and lost contact successively with the !gikwe, ǁganakwe and !h3: speakers as the expedition drew to a close. Other reasons are that my field notes were sometimes inadequate, that I forgot to ask, and that some plants appeared restricted to certain areas and were not known to all the groups of Bushmen.

As the expedition was during the winter when most of the plants were in poor condition, very little photography was done in the field. Most of the photographs are from plants which were sent back to Pretoria and cultivated there, or from plants which grow naturally in the Transvaal. In this paper the plants and photographs are arranged according to de Dalla Torre and Harms (1900-1907). Specimen numbers are in brackets.

There is little doubt that the plants discussed here represent only a fraction of those used, for we covered a very small part of the area over which the Bushmen range, and this when probably most of the annuals were dead, when some foods were out of season and when the above ground parts of many bulbous and tuberous plants had withered and disappeared so that the plants themselves could not be found.

Because of poor yield, poor quality, difficulty in harvesting or lack of flavour, not many of the Bushman food plants would be worth cultivating in their present form for the use of civilised people, but they offer a large field to the plant breeder. The most promising have been noted accordingly in the text.

There were few bones around the Bushman encampments, but this does not necessarily mean that there is a scarcity of meat in their diet, for the bones might have been removed by porcupines (Alexander, 1956; Dart, 1957) or eaten by hyaenas. A more reliable indication was the scantiness of the Bushmen's skin coverings. There are sharp frosts in the Kalahari and sometimes bitter winds, and one may argue that the Bushmen would provide themselves with sufficient skins if they had a regular supply of meat, although admittedly they eat skins after charring them on the coals and pounding them in a mortar. Vegetable refuse from former meals and fresh vegetable food, however, were found at all the Bushman encampments, and additional gatherings were the permanent chore of the women and children and of the men to a lesser degree. The insanitary condition of the surroundings also provided unmistakable evidence that the bulk of their food was of vegetable origin.

Their knowledge of field botany was astonishingly good. It has to be, otherwise they would have no chance of survival in their arid country. Fragments of stem, dead leaves, and other small clues of this nature, after being unerringly identified, were all the Bushmen needed to find many of the storage organs they were seeking. Differences which escaped me would enable them to distinguish between edible and harmful plants, and they had a thorough knowledge of the areas and habitats in which their food plants grew. They must have an influence on the distribution of plants.

7:Story N-5 (1955) 1958 FX10 Bushmen FX10

SYNOPSIS AND DESCRIPTIONS.

128 The synopsis is intended as a guide only, and leads to groups of plants and usually not to species. The descriptions and photographs should make the final identification possible, but it should be remembered that there are many Bushman food plants which were not seen on the expedition and which are therefore not described in this paper.

I have taken for granted that the reader will realise that the measurements of plants and their organs vary, and for this reason I have usually given what I consider to be the average and have omitted most words like "approximately" and "about".

Technical terms have been avoided except for the following:—

Axil of leaf—the angle between the leaf and the stem;
glabrous—without hairs;
glaucous—bluish-green, or covered with a bloom;
pappus—a tuft of hairs on a seed;
perianth—petals and sepals;
rhizome—an underground stem;
tomentum—dense short hairs;
tuber—a roundish succulent underground stem.

UNDERGROUND PARTS EDIBLE.

137 262 Trees or shrubs	*Bauhinia macrantha.* *Boscia albitrunca.* *Commiphora* spp.
Prostrate runners	*Bauhinia esculenta.* *Cucumis* sp.
Climbers or scramblers:—	
Scramblers	*Ipomoea verbascoidea.*
Twiners	*Ceropegia* spp.
With tendrils	*Coccinia* spp. *Corallocarpus welwitschii.*
Fleshy finger-like angled erect stems	*Caralluma knobelii.* *Duvalia polita.* *Stapelia kwebeerie*
Without chlorophyll	*Hydnora* sp. *Terfezia* sp
Wiry 12" stems	*Ipomoea* sp. *Raphionacme burkei.*
Monocotyledons (strap-shaped or grass-like leaves):—	
Bulb with papery coverings	*Dipcadi* sp. *Mariscus congestus.* *Scilla* sp.
Rounded storage organ without papery coverings	*Eulophia* spp. *Walleria* sp.
Horizontal rhizome	*Sansevieria scabrifolia.* *Typha capensis.*

16: Lee E-5 (1963-1965) 1966 FX10 Bushmen FX10

Thanks are due to several colleagues in central Africa who offered valuable technical assistance: to Mr. Reay H. N. Smithers, Director of the National Museums of Rhodesia, for identifications of vertebrate fauna and for providing the mammalian weights used in Chapters V and VIII; to Mr. Graham Guy, Curator of the Queen Victoria Museum, Salisbury, for training in field botany; to Mr. R. B. Drummond, Systematic Botanist, and the staff of the National Herbarium of Rhodesia, for determinations of over 300 plant specimens; and to Mr. Clayton Holliday, Senior Technical Officer, and the staff of the Livingstone Museum for kind and generous assistance beyond the call of duty.

I owe a special vote of thanks to Dr. Brian Fagan of the British Institute of Archaeology, Nairobi[1], for his unfailing logistic support.

A number of South African specialists in Bushman studies and related fields have contributed useful suggestions: Dr. John Blacking (ethnomusicology), Dr. Stanley Blecher (genetics), Dr. H. J. Heinz (parasitology), Prof. Phillip Mayer (social anthropology), and Prof. Phillip V. Tobias (physical anthropology). All of the above are on the staff of the University of Witwatersrand, Johannesburg. Thanks are due,

---

1. formerly Keeper of Prehistory, Rhodes-Livingstone Museum, Livingstone, Zambia.